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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,861

06/27/2006

Peter Larsson

P18811-US1

1464

27045

7590

08/04/2009

ERICSSON INC.
6300 LEGACY DRIVE
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PLANO, TX 75024

EXAMINER

JAMA, ISAAK R

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

08/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,861	LARSSON, PETER	
	Examiner	Art Unit	
	ISAAK R. JAMA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 1-28 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-50 and 54-56 is/are allowed.
- 6) ☐ Claim(s) 51 is/are rejected.
- 7) ☐ Claim(s) 52 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,184,703 (Naden et al.) in view U.S. Patent Number 6,965,568 (Larsen) and further in view of the Applicant's admitted prior art.
2. Regarding claim 51, Naden discloses a receiver adapted for use in a two-hop wireless communication network **[Figure 2]**, wherein the network comprises a transmitter **[Figure 1, # 8; i.e. source]**, a receiver **[Figure 1, # 10; i.e. destination]** and at least one relay station **[Figure 1, #s 12 and 14; i.e. Relays 1 & 2]**, wherein the relay station is adapted to forward signals from the transmitter to the receiver **[Figure 1, #s 12 and 14; i.e. Relays 1 & 2]**, Naden also teaches feedback means operative to feed back the information on selected relay to the transmitter **[Figure 1, see line 24]**. But Naden neither teaches the receiver having selecting means operative to select a set of relay stations from a plurality of relay stations nor that the plurality of relay stations having substantially overlapping coverage, said selecting means arranged to base the selection on relay channel quality. Larsen teaches a multi-hop packet radio network **[Title]**, whereby a monitoring may be carried out by receiving data transmitted by the other stations, and analyzing the received data transmissions to select an intermediate

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or destination station [**Column 1, lines 61-64**], and the Applicant's Admitted prior art teaches relays with overlapping coverage [**Figure 3, Relays 215:1, 215:2, 215:3 and 215:4; page 1, paragraph 008**]. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the relay selection method of Larsen and the overlapping coverage of the admitted prior art into the multi-hop wireless communication system of Naden in order to improve the reliability of the connection between a transmitter and a receiver.

Allowable Subject Matter

4. Claims 52 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 29-50 and 54-56 are allowed.

6. The prior art made of record and relied upon by the examiner in the prosecution of the Application fails to teach or even suggest "establishing by said at least one mobile station a soft association to said plurality of relay stations by internally selecting a set of relay channels from said number of relay stations, said set of relay channels associated to the relay stations being candidates for use in the communication session; feeding back from the at least one mobile station, during the communication session, information on the communication quality to the base station; and, adapting in the base station the transmission to at least one of the relay stations which the mobile station has soft association with, in response to the communication quality feedback from the at least one mobile station" recited in independent claims 29, 47 and 54.

7. Claims 30-39, 48-50 and 55-56 are allowed by virtue of being dependent on allowed independent claims 29, 47 and 54 respectively.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAK R. JAMA whose telephone number is (571)270-5887. The examiner can normally be reached on 7:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/IRJ/

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617